

Patients' perception and satisfaction with apicoectomy

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ABSTRACT

Objectives: This study was aimed to examine the patients' perception and satisfaction with the results of endodontic microsurgery which was apicoectomy with retrofilling.

Materials and Methods: A questionnaire was given to 109 patients, who were recalled after a minimum of 3 months upon endodontic microsurgery in the Department of Conservative Dentistry, Yonsei University. A contingency table and correlation analysis were used to determine if there were any correlations between age/gender and the patients' responses ($p = 0.05$).

Results: Approximately 60% of respondents answered they had never heard of surgical endodontic procedures. 63.3% of respondents chose the surgical option because they wanted to keep their natural teeth. If the patient required the same procedure on another tooth later, 100 out of 109 respondents answered they would choose microsurgery instead of extraction. Most patients (82.57%) appeared to be satisfied with the surgical procedure.

Conclusions: Endodontic microsurgery consisting of apicoectomy and retrofilling seems to appeal to majority of patients as a satisfactory and valuable treatment choice. [J Kor Acad Cons Dent 2011;36(2):114-118.]

Key words: Apicoectomy, Perception, Satisfaction

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INTRODUCTION

The success rate of current endodontic microsurgery has been reported to range between 70% and 95%.¹⁻⁴ Recently, at our institution, Kim et al. reported a 91.5% overall success rate in 188 apicoectomy with retrofilling cases.⁵ They considered the cases successful when there was the absence of clinical signs and/or symptoms and radiographic evidence of complete or incomplete healing. Although apicoectomy is an established procedure, it may not be familiar to

the general population compared to non-surgical root canal therapy or dental implants. In order to make this endodontic surgical procedure available to future patients and dentists unfamiliar with the procedure, it would be valuable to assess apicoectomy not only from a scientific point of view, but also from the patients who underwent the procedure.⁶⁻⁸

This study investigated the patient's perception and satisfaction for apicoectomy with retrofilling by survey.

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MATERIALS AND METHODS

A questionnaire was given to patients, who were recalled for recall after endodontic microsurgery in the Department of Conservative Dentistry, Yonsei University Dental Hospital and GangNam Severance Dental Hospital, Yonsei University, Seoul, Korea between July 2006 and June 2008. The patients who returned for at least 3-month routine check-up after surgery were enrolled in this study. The aim of the survey was explained to the patients who wished to participate in this study. The institutional Review Board of GangNam Severance Hospital, Yonsei University approved both the protocol and the informed consent. The written informed consent was obtained from each patient (No 3-2008-0082).

Those who visited the clinic within 3 months after the surgical procedure and/or could not express their own opinions on the medical reasons were excluded. Those who underwent surgical intentional replantation and autotransplantation were also excluded.

The surgical procedures were performed according to the methods reported by Kim et al.⁵ All the patients were treated by faculties who had been specially trained for endodontics. Surgical procedures were carried out using a dental operating microscope (OPMI PICO, Carl Zeiss, Göttingen, Germany) except for local anesthesia, incision, flap elevation and suture.

The questionnaire is shown in Table 1.

RESULTS

One hundred and nine patients (41 male patients and 68 female) participated in the survey. The average age of the patients' age was 41.4 years (Table 2).

Patients' perception to apicoectomy

Approximately 60% of respondents answered that they had never heard of surgical endodontics before. Only 12% of patients said that they had sufficient knowledge (Figure 1).

Table 1. Patient satisfaction survey after surgical endodontic procedure (apicoectomy)

*This questionnaire was prepared for patients who received a surgical endodontic procedure (named apicoectomy) at the Department of Conservative Dentistry, College of Dentistry, Yonsei University.

*We ask that you take a moment to answer a few questions regarding your experience. We wish to inform you that your medical records or personal information will not be published or disseminated in any form, and only the results from this survey will be collected for future scientific publications. Thank you for your cooperation.

1. Have you heard about this surgical endodontic procedure (apicoectomy)?
 - A. Never
 - B. Yes, but not in detail
 - C. Yes, I was well informed
2. What was the most significant reason for deciding to undergo this surgical procedure?
 - A. My own tooth is important
 - B. Implant or bridge is more expensive
 - C. My dentist recommended
 - D. Not sure
3. Based on your experience, would you recommend this surgical procedure to your friend or family if he (she) requires a similar procedure?
 - A. Yes
 - B. No
 - C. Not sure
4. What would you do if your another tooth requires surgery?
 - A. Surgery
 - B. Extraction
 - C. Not sure
5. How satisfied are you with the surgical procedure?
 - A. Very satisfied
 - B. Satisfied
 - C. Neutral
 - D. Dissatisfied
 - E. Very Dissatisfied
6. How would you feel if the treated tooth requires extraction within a couple of years?
 - A. No regrets since I did my best
 - B. I may regret that I should have pulled out the tooth without surgery
 - C. Not sure

Table 2. Patients' data

| | | |
|------------|----------|----|
| Sex | Males | 41 |
| | Females | 68 |
| Age, yr | 11-20 | 1 |
| | 21-30 | 28 |
| | 31-40 | 26 |
| | 41-50 | 21 |
| | 51-60 | 18 |
| | 61-70 | 10 |
| | 71-80 | 5 |
| Tooth type | Anterior | 52 |
| | Premolar | 14 |
| | Molar | 43 |

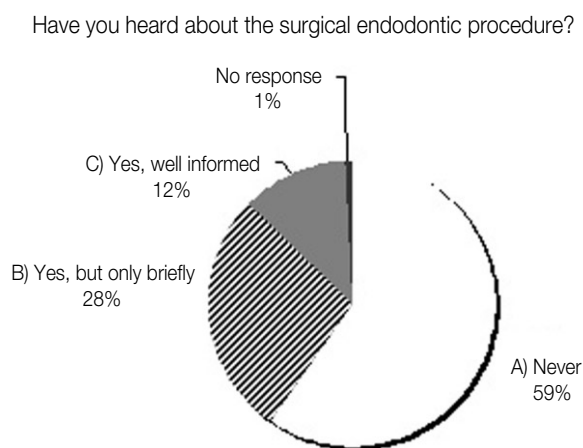


Figure 1. Responses to question 1.

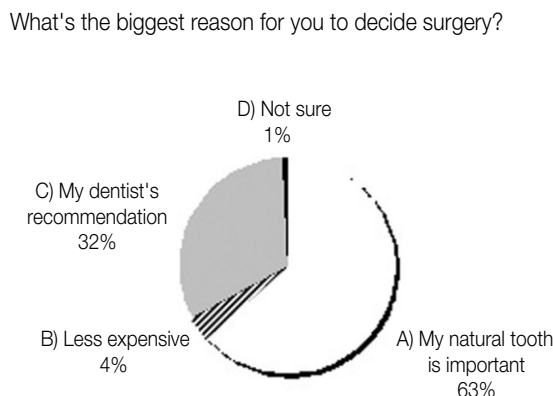


Figure 2. Responses to question 2.

Patients' motivation to apicoectomy

Most patients (63.3%) decided on the surgical procedure instead of extraction because that they wanted to keep their natural tooth. There were a relatively low percentage of respondents (4%) who were treated with surgery due to economical reasons (Figure 2).

If the patient required the same procedure on another tooth in the future, 100 out of 109 respondents answered that they would prefer microsurgery instead of extraction. Similarly, if a friend or family member required endodontic surgery, 90 patients said they would recommend the procedure to them (Figure 3).

Patients' satisfaction

Most patients (82.6%) appeared to be satisfied with the surgical procedure. Although the prognosis of the procedure was not always positive in the short

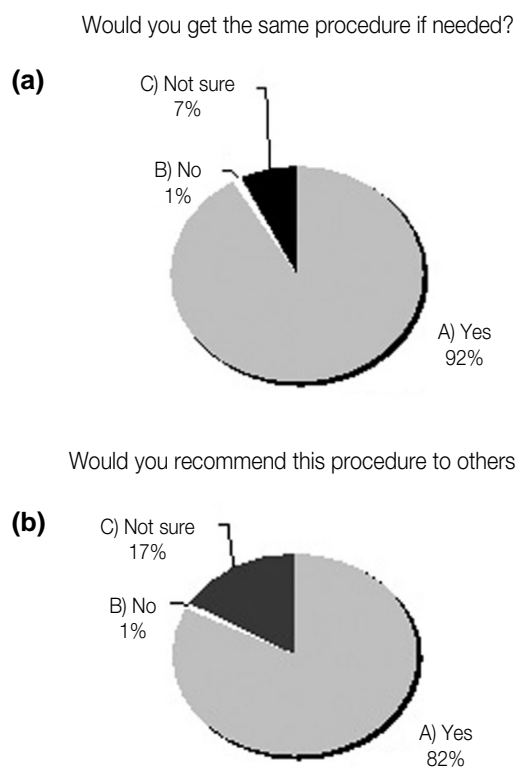


Figure 3. (a) Responses to question 3. (b) Responses to question 4.

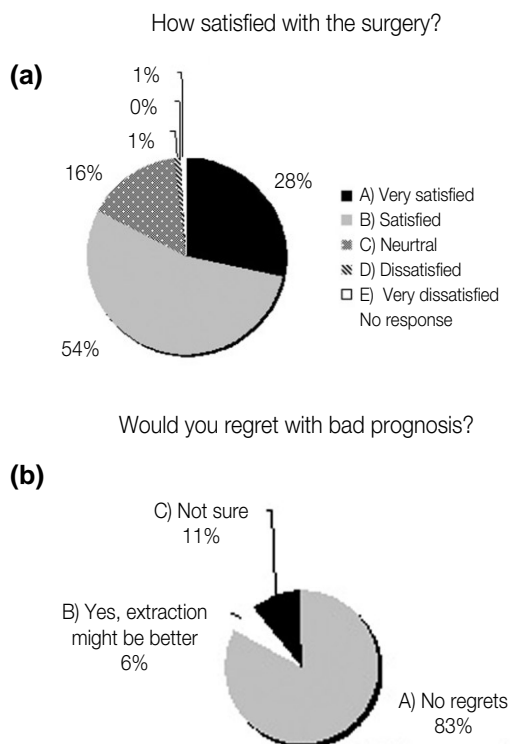


Figure 4. (a) Responses to question 5. (b) Responses to question 6.

term, 83.5% of patients responded they would have no regrets because they felt that they had done any attempt to save their natural dentition (Figure 4).

DISCUSSION

Although apicoectomy is already a well-established procedure, it may not have been familiar to the general population compared to dental implants. This survey clearly showed that most patients who underwent the procedure were unaware of the procedure before. From the patients' point of view, it is more important to save their natural teeth rather than save money. Another interesting finding is that most of the patients responded that they would have no regrets if the treated tooth required extraction because they felt that they had made any effort to save their natural tooth.

Even though the survey did not included postoper-

ative symptoms, patients' high satisfaction indirectly indicates that post operative sequelae of apical surgery are not a major issue.

The small sample size might be a limitation of this study. In addition, those patients who did not return for a routine check-up may have responded differently. Harrison et al. mentioned that very satisfied and very dissatisfied respondents might have a tendency to participate actively in the survey.⁸ However, the results of the survey might be meaningful to endodontists because it canvassed the patients' opinions of apical surgery.

This study highlights the need to provide sufficient information on endodontic surgical procedures through as many routes as possible.

CONCLUSIONS

According to the present investigation endodontic microsurgery seems to be a procedure not yet well known by most of the patients but certainly satisfying to them if proper case selection is made.

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국문초록

치근단절제술에 대한 환자의 인식과 만족도 조사

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연구목적: 본 연구는 치근단절제술과 역충전을 시행한 환자를 대상으로 치근단미세수술의 결과에 대한 환자의 인식과 만족도를 조사하는 것을 목적으로 하였다.

연구 재료 및 방법: 연세대학교 치과보존과에서 치근단 수술 후 최소 3개월 이후 정기검진을 위해 내원한 환자를 대상으로 설문조사를 시행하였다. 응답자의 나이/성별간 응답의 차이가 있는지는 contingency table을 이용해서 분석하였다 ($p=0.05$).

결과: 응답자의 60% 정도가 이전에 치근단 수술에 대해서 들어본 적이 없었으며 치근단 수술을 결정한 이유는 63.3%에서 자연치를 보존하기 위해서라고 응답하였다. 이후 비슷한 상황이 생긴다면 대부분의 환자가 다시 치근단수술을 선택할 것이라고 하였으며 수술의 만족도는 전반적으로 높은 편이었다.

결론: 치근단수술은 대부분의 환자에서 만족스러운 치료로 인식되고 있다.

주요단어: 치근단절제술; 환자의 만족도